

and by observation 2d,

II. 115	R.A.	^h 12	^m 22	^s 12.9	N.P.D.	[°] 75	['] 34	["] 53
II. 116	„	12	22	27.9	„	75	37	53

and taking the means,

II. 115	R.A.	12	22	14.1	N.P.D.	75	32	43
II. 116	„	12	22	29.1	„	75	35	43

The middle point between which differs from the place of (B) by only 19^s.4 in R.A. and 2' 11" in P.D.; so that it is very certain that, had both the objects remained in their places, they must have been in the field of view of a telescope directed on (B).

M. d'Arrest's telescope has amply sufficient power to have shown the missing Nebula (the fainter of the two in all probability, or H. II. 116), which had sufficient illumination to be characterised as "resolvable," and as "pretty bright," or a full second-class Nebula.

Most unfortunately I find no observations of either of these Nebulæ in my reviews of the Nebulæ. They occur in a very rich region of the heavens; but by taking 6 Comæ as a guide, there can be no difficulty in setting a telescope upon the place; and I strongly recommend the point for re-examination.

Collingwood, April 4th, 1862.

Opposition of Mars, 1862. By Lieut. J. M. Gilliss, Director of the U.S. Naval Observatory, Washington.

The co-operation of astronomers is invited in a series of observations upon the planet *Mars*, near the opposition of the present year. Differential measures with the stars designated in the accompanying Ephemeris, will be made at the U. S. Naval Observatory, from 27th August to 7th November, 1862. They will be commenced at one hour before the transit of the planet over the meridian of Washington, and be continued during two hours, the measures being repeated as frequently and as rapidly as is consistent with the utmost care. The comparisons will be confined exclusively to the star selected for the night, and it will be referred to the north and south limbs of the planet at alternate measures, the time at which the planet's limb is observed being noted to the nearest tenth of a second. Both objects will also be observed with the meridian instruments, and their difference of declination will be measured with the micrometer-screw of the circle-telescope.

Astronomers who make these observations are most respectfully requested to forward a copy of them to this establishment as soon thereafter as is practicable, and to transmit, at the same time, a statement respecting the instruments used, together with any information which may influence a discussion of the results.

In preparing the Ephemeris, whenever suitable ones could be obtained, stars were selected from published catalogues, the criterion of availability being a difference of declination not to exceed 4'. For September 17th, it was necessary to take a more distant star. The places of those to which numbers only are given (1 to 11 inclusive) were derived from special observations made with the Washington Equatoreal. To facilitate recognition of the comparison-star selected for each night, all the stars contained in accessible Catalogues and Star-charts which lie near the path of the planet have been inserted on a map accompanying the Ephemeris.

A copy of this last, with the map, will be sent to every Observatory by mail. As some of the copies may not reach their destination, extra numbers will be forwarded to the Secretary, Royal Astronomical Society, London, and to Dr. C. A. F. Peters, at Altona, either of whom will furnish them on application.

Ephemeris of Stars to be observed with Mars near the Opposition of the Planet, 1862.

Date.	Object.	Mag.	α .	δ .
1862.			^h ^m ^s	[°] ['] ["]
Aug. 27	Mars		1 17 30	+ 3 5 43
	Weisse I. 335	9	20 27	9 43
28	Mars		1 17 45	3 6 48
	Weisse I. 335	9	20 27	9 43
29	Mars		1 17 58	3 7 37
	Weisse I. 335	9	20 27	9 43
30	Mars		1 18 6	3 8 12
	Weisse I. 335	9	20 27	9 43
31	Mars		1 18 12	3 8 22
	Weisse I. 335	9	20 27	9 43
Sept. 1	Mars		1 18 14	3 8 37
	Weisse I. 335	9	20 27	9 43
2	Mars		1 18 13	3 8 28
	Weisse I. 335	9	20 27	9 43

Date.	Object.	Mag.	α .	δ .
1862.			^h ^m ^s	[°] ['] ["]
Sept. 3	Mars		1 18 9	3 8 5
	Weisse I. 335	9	20 27	9 43
4	Mars		1 18 2	3 7 27
	Weisse I. 335	9	20 27	9 43
5	Mars		1 17 51	3 6 36
	Weisse I. 330	8.9	20 9	5 26
6	Mars		1 17 37	3 5 30
	Weisse I. 330	8.9	20 9	5 26
7	Mars		1 17 19	3 4 12
	Weisse I. 330	8.9	20 9	5 26
8	Mars		1 16 58	3 2 39
	Weisse I. 330	8.9	20 9	5 26
9	* 1	9	1 15 37	3 3 55
	Mars		16 35	0 54
10	* 2	9.10	1 12 38	2 58 47
	Mars		16 7	58 55
11	* 2	9.10	1 12 38	2 58 47
	Mars		15 37	56 45
12	* 2	9.10	1 12 38	2 58 47
	Mars		15 4	54 22
13	* 3	9.10	1 12 28	2 49 50
	Mars		14 27	51 48
14	Mars		1 13 48	2 49 2
	Weisse I. 229	9	15 11	47 49
15	Mars		1 13 5	2 46 6
	Weisse I. 229	9	15 11	47 49
16	Mars		1 12 19	2 42 59
	Weisse I. 229	9	15 11	47 49
17	Mars		1 11 31	2 39 43
	B.A.C. 397	7.8	12 16	33 48
18	Mars		1 10 40	2 36 18
	B.A.C. 397	7.8	12 16	33 48
19	Mars		1 9 46	2 32 45
	B.A.C. 397	7.8	12 16	33 48

Date.	Object.	Mag	α :			δ :		
1862.			h	m	s	°	'	"
Sept. 20	Mars		1	8	50	2	29	4
	B.A.C. 397	7.8		12	16		33	48
21	Mars		1	7	51	2	25	16
	* 4	9		10	17		22	36
22	Mars		1	6	51	2	21	23
	* 4	9		10	17		22	36
23	Weisse I. 20	9	1	3	7	2	15	40
	Mars			5	48		17	25
24	Weisse I. 20	9	1	3	7	2	15	40
	Mars			4	43		13	23
25	Mars		1	3	36	2	9	18
	* 5	9		6	5		11	50
26	* 6	9	1	2	4	2	2	20
	Mars			2	28		5	11
27	Mars		1	1	19	2	1	2
	* 6	9		2	4		2	20
28	Weisse 0°1031	9	0	59	0	1	53	35
	Mars		1	0	8		56	54
29	Mars		0	58	57	1	52	47
	Weisse 0°1031	9		59	0		53	35
30	Mars		0	57	44	1	48	41
	Weisse 0°1023	9		58	36		44	11
Oct. 1	Mars		0	56	31	1	44	39
	Weisse 0°1023	9		58	36		44	11
2	Mars		0	55	17	1	40	39
	Weisse 0°973	9		55	50		36	10
3	Mars		0	54	4	1	36	44
	Weisse 0°973	9		55	50		36	10
4	Mars		0	52	50	1	32	54
	Weisse 0°973	9		55	50		36	10
5	* 7	9	0	48	34	1	32	19
	Mars			51	36		29	10
6	Mars		0	50	23	1	25	34
	Weisse 0°871	8.9		50	36		20	46

Date.	Object.	Mag.	α .	δ .
1862.			h m s	° ' "
Oct. 7	Mars		0 49 10	1 22 5
	Weisse 0.871	8.9	50 36	20 46
8	Mars		0 47 58	1 18 45
	Weisse 0.871	8.9	50 36	20 46
9	Mars		0 46 46	1 15 34
	* 8	9	49 38	17 0
10	Mars		0 45 36	1 12 33
	Weisse 0.806	9	46 34	9 38
11	Mars		0 44 26	1 9 42
	Weisse 0.806	9	46 34	9 38
12	Mars		0 43 18	1 7 3
	Weisse 0.806	9	46 34	9 38
13	Weisse 0.649	8	0 38 0	1 3 20
	Mars		44 11	4 35
14	Weisse 0.649	8	0 38 0	1 3 20
	Mars		41 6	2 10
15	Weisse 0.649	8	0 38 0	1 3 20
	Mars		40 3	0 19
16	Lalande 1123	9	0 35 35	0 56 24
	Mars		39 2	58 31
17	Lalande 1123	9	0 35 35	0 56 24
	Mars		38 2	56 57
18	Lalande 1123	9	0 35 35	0 56 24
	Mars		37 5	55 38
19	Lalande 1123	9	0 35 35	0 56 24
	Mars		36 10	54 35
20	Mars		0 35 17	0 53 47
	Lalande 1123	9	35 35	56 24
21	Mars		0 34 27	0 53 15
	Lalande 1123	9	35 35	56 24
22	Mars		0 33 40	0 52 59
	Lalande 1123	9	35 35	56 24
23	Mars		0 32 55	0 52 59
	Lalande 1123	9	35 35	56 24

Lieut. Gilliss, Opposition of Mars, 1862.

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Date.	Object.	Mag.	α .	δ .
1862, Oct. 24	Mars		^h ^m ^s 0 32 13	^o ['] ["] 0 53 17
	Lalande 1123	9	35 35	56 24
25	Mars		0 31 34	0 53 51
	Lalande 1123	9	35 35	56 24
26	Mars		0 30 57	0 54 43
	Lalande 1123	9	35 35	56 24
27	Mars		0 30 24	0 55 51
	Lalande 1097	8.9	34 30	59 34
28	Mars		0 29 53	0 57 17
	Lalande 1097	8.9	34 30	59 34
29	Mars		0 29 26	0 58 59
	Lalande 1097	8.9	34 30	59 34
30	Mars		0 29 2	1 0 59
	* 9	9	29 40	5 34
31	Mars		0 28 40	1 3 15
	* 9	9	29 40	5 34
Nov. 1	Mars		0 28 22	1 5 48
	* 9	9	29 40	5 34
2	Mars		0 28 7	1 8 38
	* 9	9	29 40	5 34
3	* 10	9.10	0 27 44	1 10 0
	Mars		27 54	11 44
4	* 11	9.10	0 26 52	1 16 40
	Mars		27 45	15 6
5	Weisse 0°393	9	0 24 21	1 22 28
	Mars		27 39	18 44
6	Weisse 0°393	9	0 24 21	1 22 28
	Mars		27 36	22 38
7	Weisse 0°420	9	0 25 34	1 23 53
	Mars		27 36	26 47

*U.S. Naval Observatory,
March 1862.*